

2(Twice Amended). The method of Claim 1, wherein step (a) comprises compiling said target object to generate said client object, said client object comprising a target object interface identifying said remotely accessible methods of said target object and said client object further comprising a target object stub implementing said remotely accessible methods.

18(Amended). A method of managing from a first virtual machine a target object at a second virtual machine where the target object includes features that can be manipulated programmatically by processes in the second virtual machine, the method comprising:

registering the target object and a network adaptor for a network protocol with a framework at the second virtual machine;

generating a client object on the first virtual machine forming a representation of the target object, which client object is configured to identify remotely accessible methods of the target object that support programmatic manipulation of target object properties by processes in the second virtual machine;

associating said client object with the network adaptor for the network protocol at the first virtual machine; and

enabling a client application to manage the target object by instantiating the client object.

REMARKS

Claims 1-18 remain in the patent application. Claims 1, 2, and 18 are amended to more distinctly describe the subject matter of applicant's invention and to address issues of form raised in the Office Action. No new matter is added by these amendments and the amendments are not intended to affect the scope of the claims.

A. Rejections under 35 U.S.C. 112

The amendments to claims 1 and 18 are believed to overcome the objection raised in the office action. Claim 2 is amended to improve correspondence to the language of claim 1. In large part, the amendments to

claims 1 and 2 returns the claims to a form closer to that originally filed, but with additional language that is believed to clarify the subject matter of the claims.

B. Rejections under 35 U.S.C. 103

Claims 1, 2, 7, 8, 15 and 17 were rejected under 35 U.S.C. 103 as unpatentable over Hill et al in view of the Object Management Group document (hereinafter referred to as the "CORBA specification") and further in view of Hollberg et al. This rejection is respectfully traversed.

In general, the claims have been amended to reflect that the present invention is directed to a system of managing remote objects rather than to a system for invoking behaviors of remote objects. Properties of an object affect the functionality and behavior of that object. The manipulation of properties of the beans was typically allowed only within the same virtual machine upon which the bean existed by accessing methods of that object which enabled the properties to be manipulated or changed.

The present invention provides methods for accessing these methods remotely and manipulating these properties so that the object properties can be programmatically altered and configured remotely, rather than being constrained to manipulation by a tool executing on the same virtual machine as the bean itself. As noted in previous responses, the Hill et al. reference is directed exclusively to remote implementation of an object (not manipulation of object properties) by creating a proxy for the object in a client, then coupling messages between the proxy and the object itself. These features taught by Hill et al. are generally not at issue in the present invention. Similarly, CORBA generally involves the remote invocation of objects, not the remote management of objects. Both of these references appear to assume that the target object will be created, edited, and otherwise managed from the same machine in which a builder tool exists, an assumption that the present invention does not adhere to. The Office Action appears to neglect these features of the claims.

Claim 1, as amended, calls for generating a client object forming a representation of the target object. As noted in the specification, this representation may be a list including the name of the target object, or other properties of the target object which can be manipulated. Claim 1 also calls for the client object to identify and access methods of the target object which support remote manipulation of the properties. The specification points out that such methods include methods to get, set, create, delete, add object and remove object. These methods do not invoke the features and behavior of the object directly, but manipulate how they will behave when the object is invoked.

Similarly, claim 7 calls for a remote access support mechanism including a network adapter that is responsive to remote access request from a client machine. Here, remote access requests are intended to encompass requests that attempt to manipulate the object, rather than invoke the object's behaviors. Claims 15 and 17 call for target objects that are responsive to remote access requests to access and modify the target object via a framework. At least these features of the present invention are not shown or suggested in the relied on references.

Notably, the Office Action appears to be, in large part, a copy of the prior office action and does not specifically address the claim language changes and arguments supplied in the preliminary amendment filed 12/27/01. For example, the rejection of claims 1, 2, 6-8 and 15-18 continues to make a rejection for remote invocation of any method rather than remote identification and access to methods that allow manipulation of target object properties.

Hill et al., alone or in combination with the CORBA reference, do not suggest any means for or need to modify properties of a target object. Taken together for all that they teach, the combination suggests a mechanism for remote invocation of objects as they are defined, but fail to suggest any means for managing the objects. For at least this reason, independent claims

1, 7, 15, 17 and 18 are allowable over the relied on references, as are the claims that depend from them.

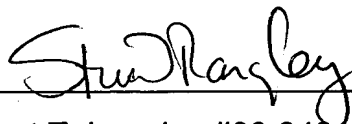
C. Conclusion

In view of all of the above claims 1-18 are believed to be allowable and the case in condition for allowance which action is respectfully requested. The references that were cited and not relied upon are believed to be no more pertinent that those references that were relied upon.

No fee is believed to be required by this response as determined on the accompanying transmittal letter. Should any other fee be required, please charge Deposit 50-1123. Should any extension of time be required please consider this a petition therefore and charge the required fee to Deposit Account 50-1123.

Respectfully submitted,

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Version with marking to show changes:

1(Twice Amended). A method of managing from a client station a target object at a remote station via a telecommunications network, said method comprising the steps of:

- 5 (a) generating a client object forming a representation of said target object, which client object is configured to identify [features] methods of said target object which [can be] are remotely accessible and support manipulation of properties of said target object, said client object being further configured [manipulated and] to implement said remotely accessible methods [which support remote manipulation of said features];
- 10 (b) registering said target object and a network adaptor for a network protocol with a framework at said remote station;
- (c) associating said client object with a network adaptor for said network protocol at said client machine; and
- 15 (d) enabling a client application to access said methods which support remote manipulation by instantiating said client object.

2(Twice Amended). The method of Claim 1, wherein step (a) comprises compiling [a] said target object [and generating a] to generate said client object, said client object comprising a target object interface identifying said remotely accessible methods of said target object [that support manipulation remotely] and said client object further comprising a target object stub implementing said remotely accessible methods [that support manipulation].

18(Amended). A method of managing from a first virtual machine a target object at a second virtual machine where the target object includes features that can be manipulated programmatically by processes in the second virtual machine, the method comprising:

5 registering the target object and a network adaptor for a network protocol with a framework at the second virtual machine;

generating a client object on the first virtual machine forming a representation of the target object, which client object is configured to identify [features] remotely accessible methods of the target object that [can be
10 manipulated programmatically] support programmatic manipulation of target object properties by processes in the second virtual machine;

associating said client object with the network adaptor for the network protocol at the first virtual machine; and

enabling a client application to manage the target object by
15 instantiating the client object.